

ABSTRACT

a motor coil-shorting detecting unit is provided which determines the existence of a short. The coil shorting 5 detecting unit includes a current sensor for detecting the value of current supplied to a motor from a power source, and a controller for making the shorting determination of coils by comparing a detected voltage or current with a pre-stored normal voltage or current.

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1000 900 800 700 600 500 400 300 200 100 90 80 70 60 50 40 30 20 10 9 8 7 6 5 4 3 2 1